



Pinellas Environmental Restoration Project

Northeast Site

Non-Aqueous Phase Liquids

Interim Measure Progress Report

April Through June 2004

July 2004



U.S. Department
of Energy



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Work Performed by S.M. Stoller Corporation under DOE Contract No. DE-AC01-02GJ79491
for the U.S. Department of Energy Office of Legacy Management, Grand Junction, Colorado

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1.0 Introduction

This quarterly report for the in-situ thermal remediation of non-aqueous phase liquids (NAPL) at the Northeast Site covers the period of April through June 2004. Previous reports provided background information for the site, a description of the remediation process, an overview of construction and operation activities for NAPL Area A, a description of the final activities for the Area A remediation system, including demobilization, confirmatory sampling, and the final report. Additionally, recent quarterly reports contained a description of planning activities for the construction of a similar treatment system at NAPL Area B.

This report describes final planning and documentation activities for NAPL Area B from April through June 2004. Activities during this quarter included completion of transition activities, completion by the subcontractor of the conceptual design, final design, and other project plans for the Area B NAPL treatment, and completion of permitting activities necessary to start construction. U.S. Department of Energy (DOE) documents completed during this quarter include submittal and Florida Department of Environmental Protection (FDEP) approval of the *Addendum to the Interim Measures Work Plan for Remediation of Non-Aqueous Phase Liquids at the Northeast Site (Area B Conceptual Design)* (DOE 2004a), and completion of the *Young - Rainey STAR Center Management Plan for the NAPL Area B Remediation Project at the Northeast Site* (DOE 2004b).

2.0 Summary of Activities

The subcontract for Area B NAPL remediation was awarded to the team of WRS Infrastructure and Environment, Inc., McMillan-McGee Corporation, and PPM Consultants, Inc. in late February 2004. The subcontractor completed the final conceptual design for Area B NAPL remediation in early April, and this was submitted to FDEP in mid-April 2004 as the *Addendum to the Interim Measures Work Plan for Remediation of Non-Aqueous Phase Liquids at the Northeast Site (Area B Conceptual Design)* (DOE 2004a). FDEP approval of this document was received in June. Final design drawings were submitted to FDEP at the end of June.

NAPL remediation at Area B must be conducted up to and slightly under Building 1400, located adjacent to the south edge of the Northeast Site. This remediation will be conducted at the same time as the NAPL remediation at the remainder of Area B, but the design is located in a separate document from the main system design. The final Building 1400 design will be submitted to FDEP by the end of July.

The *Young - Rainey STAR Center Management Plan for the NAPL Area B Remediation Project at the Northeast Site* (DOE 2004b) was completed in June. This document describes the project and the responsibilities, authorities, and actions of the participants in the project. The plan includes descriptions of roles and responsibilities for phases and aspects of the project such as design, construction, operation and maintenance, verification, compliance, and waste management. The plan describes the required communications, notifications, and reporting that govern the relationships among DOE, Stoller, the WRS team, the regulatory community, and the local community. The plan also incorporates lessons learned from the Area A Project.

The subcontractor completed four documents required to begin construction activities:

- Environmental Compliance/Waste Management Plan,
- Health and Safety Plan,
- Quality Control Plan, and
- Sampling and Analysis Plan.

These plans contain procedures and control measures that the subcontractor will use during both the construction and operations phases of the project. These plans were submitted to FDEP in June. Additionally, a construction readiness review meeting was held in late June. During this meeting, a detailed checklist was reviewed to ensure that the subcontractor was fully prepared to start construction in early July.

Transition activities necessary to prepare the Northeast Site for Area B NAPL remediation were completed during this quarter. This work was divided into three phases

- Phase I. Bring onto the Northeast Site a new field office trailer, equipment sheds, and run associated utilities to the new location at the Northeast Site.
- Phase II. Install a small air stripper at the Northeast Site for Building 100 recovery wells to replace the existing large air stripper.
- Phase III. Abandon selected monitoring and recovery wells and demolish the air stripper treatment system at the Northeast Site.

Phase I, the installation of the new field office trailer, sheds, and associated utilities, was completed in late June. Installation of the new shallow tray air stripper (Phase II) was completed in late April, and was followed by startup of the system in early May. This system treats ground water recovered from the two recovery wells at the Building 100 Area. The location of the new site infrastructure is shown in [Figure 1](#). Phase III, well abandonment and treatment system demolition, was completed in mid May. The remaining recovery wells were converted to observation wells.

Work concerning the various permitting aspects of the NAPL Area B remediation continued during this quarter. The Generic Permit for Storm Water Discharge process was completed by the end of June with the submittal and acceptance by FDEP of the Notice of Intent. The associated storm water pollution prevention plan was finalized by the subcontractor by the end of June. The application for the modification of the existing synthetic non-Title V Air Emissions Permit was submitted to FDEP in early June. The modification consists of the removal of the air stripper at the Northeast Site and construction and operation of a new air emissions system required for the treatment of liquid and vapor phases associated with NAPL Area B remediation. This permit may take up to 6 months to be approved. Permits for field trailers were completed by the end of June. Work concerning well construction/abandonment permits and water use permits continued during this quarter.

In addition to the work for NAPL Area B, six new monitoring wells were installed in the interior of the former NAPL Area A (Figure 2). These wells were installed to allow monitoring inside the former NAPL remediation area for potential future remediation, if necessary. Additionally, these wells allow monitoring to verify that there is no rebound in contaminant concentrations more than a year after completion of NAPL remediation in this area. These wells were installed as three pairs (deep and shallow) at each location. These three locations were chosen because they are in or slightly hydraulically downgradient from soil or ground water sampling locations that contained the highest contaminant concentrations during the three NAPL Area A confirmatory sampling events. The placement of the wells in these locations provides the greatest opportunity to measure the highest contaminant concentrations remaining in the subsurface.

Five small diameter observation wells and one 2-inch recovery well were installed to support two aquifer tests that were conducted in the area north of Building 1400. The aquifer tests were done to determine hydraulic parameters of the upper and lower portions of the surficial aquifer beneath Building 1400. The results of the aquifer tests were used to design the ground water and vapor extraction systems that will be installed under Building 1400.

3.0 Deviations

There were no deviations from the schedule or the planned work during this quarter.

4.0 Problems

There were no problems encountered during this quarter.

5.0 Upcoming Activities

Activities for the next quarter, July through September 2004, include the following. Sampling of newly installed NAPL Area A wells will be performed in July 2004. The final Building 1400 design will be submitted to FDEP by the end of July. The construction phase of the project will start on July 6 with mobilization activities, including surveying and a utility locate, followed closely by installation of subcontractor infrastructure (office trailer, sanitary facilities, etc). Construction of the vapor cap and treatment system pad will begin in mid-July and continue into mid-August. Drilling activities including well, electrode, and sensor installation, will start in mid-August and continue into early November. The proposed layout for Area B remediation is shown in Figure 1.

Construction of the above ground treatment system is scheduled for the first half of calendar year 2005. The start of system operations is scheduled for August 2005, with operations continuing until March 2006.

6.0 References

U.S. Department of Energy, 2004a. *Addendum to the Interim Measures Work Plan for Remediation of Non-Aqueous Phase Liquids at the Northeast Site (Area B Conceptual Design)*, DOE-LM/GJ635-2004, Document Number N0075500, April.

U.S. Department of Energy, 2004b. *Young - Rainey STAR Center Management Plan for the NAPL Area B Remediation Project at the Northeast Site*, DOE-LM/GJ681-2004, Revision 0, Document Number N0079200, June.

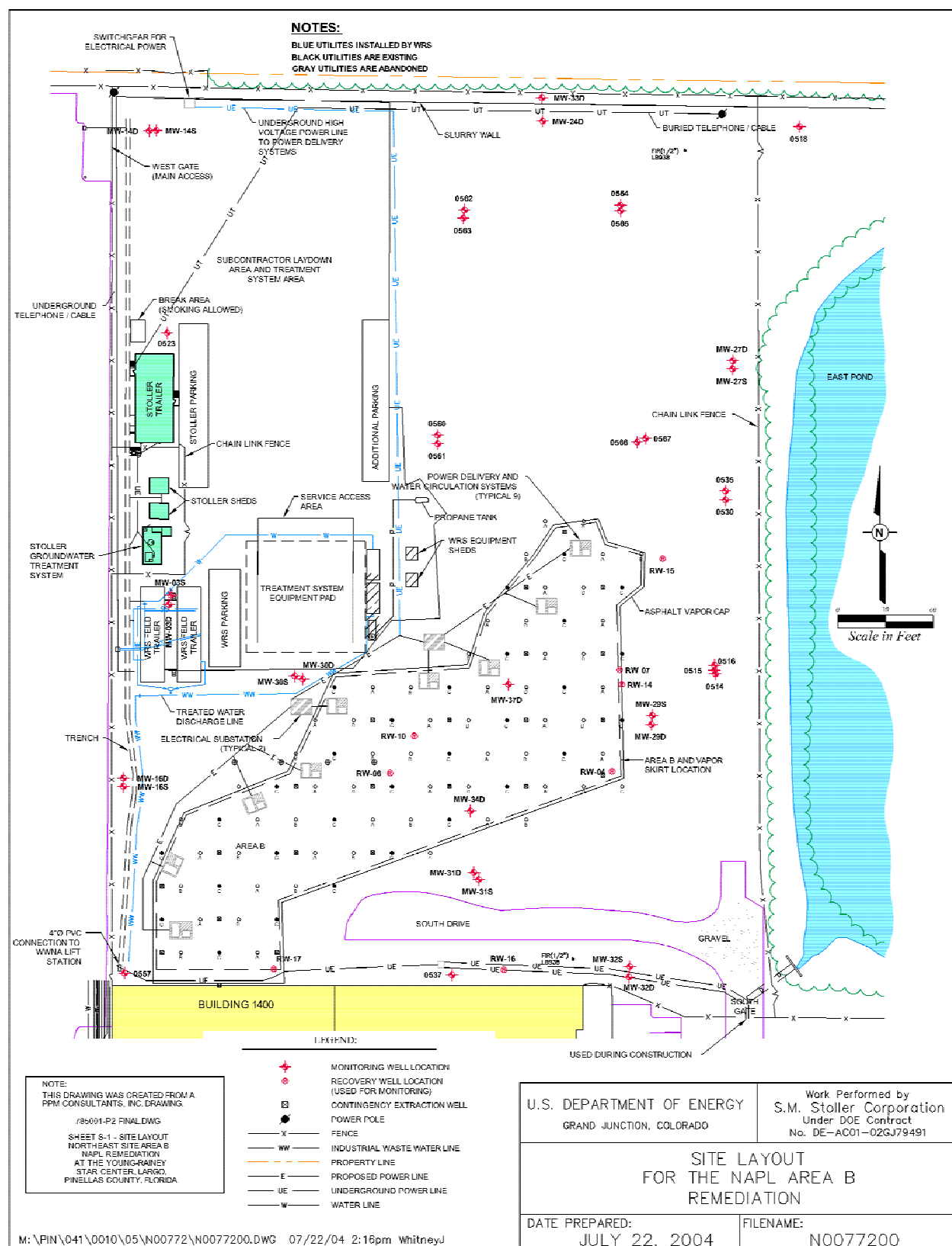


Figure 1. Location of New Infrastructure and NAPL Area B Remediation System Layout

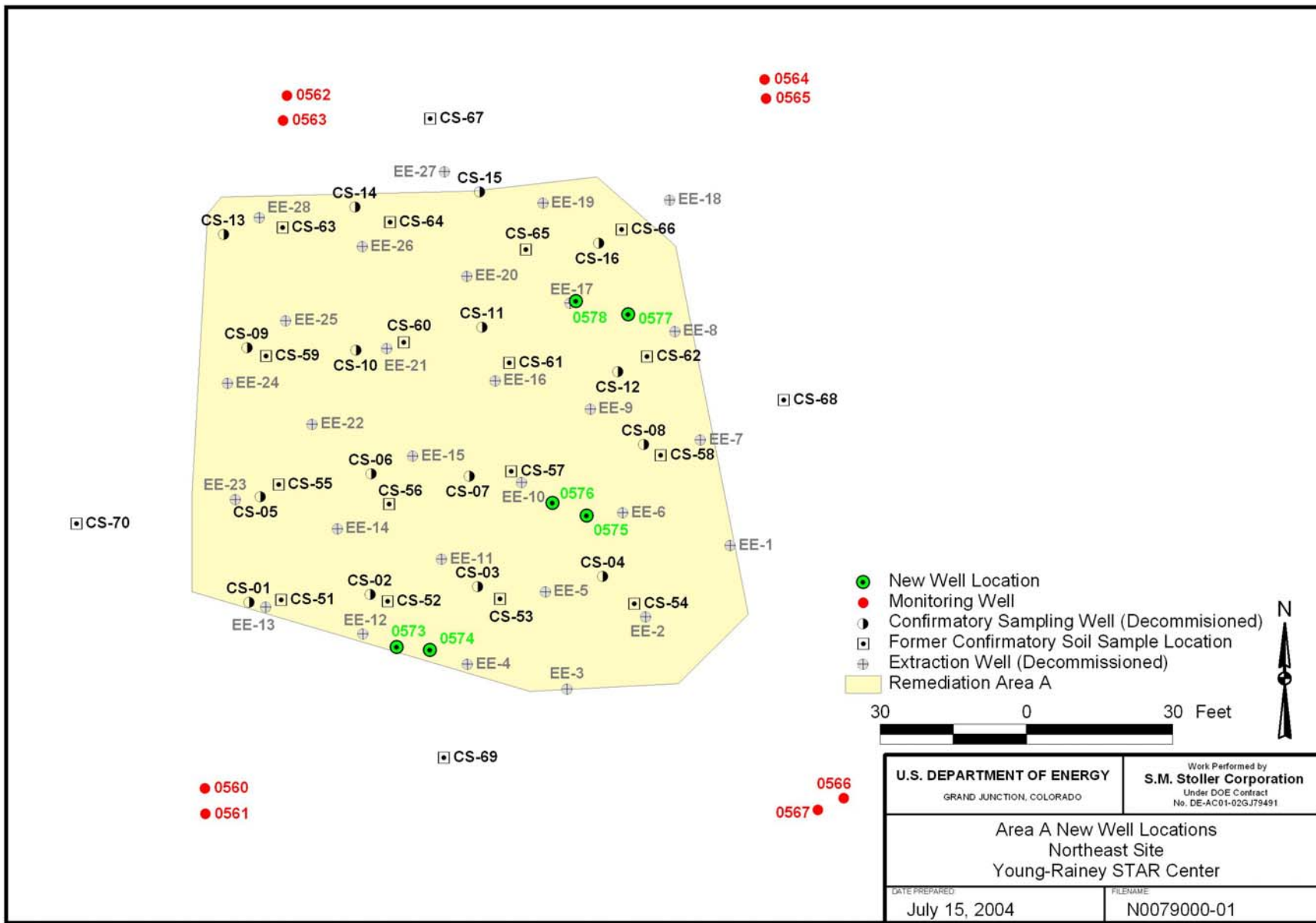


Figure 2. Location of New Monitoring Wells at Former NAPL Area A